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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,781	07/14/2003	Naga Bhushan	030168U1	7814

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QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
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EXAMINER	
VU, MICHAEL T	

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
11/14/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/619,781	BHUSHAN ET AL.	
	Examiner	Art Unit	
	Michael Vu	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,8-11 and 15-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-11 and 15-18* is/are rejected.

7)☐ Claim(s) *5-7, 12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remark, filed 04/02/2007, with respect to the rejection(s) of claim(s) 1-18 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Moulsey (US 2002/0028691), Ito (US 5,835,023), and Tong (US 2002/0150040).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, and 8-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsey (US 2002/0028691) in view of Ito (US 5,835,023).

Regarding **claims 1 and 8,** Moulsey teaches a method for transmission of packetized data in a wireless communication system [0001-0002] having a designated packet error rate [0005, 0045], the method comprising: determining a first number of installments for transmission of a first packet of data [0017, 0058-0061]; the power

boosting transmissions of a second number of installments of the first packet of data (See claims #11, #15 and #19),

But Moulsey is silent on wherein the second number is less than the first number, wherein the second number is selected to satisfy the designated packet error rate; and terminating transmission of the first subpacket of data after the second number of installments.

However, Ito teaches the mobile radio communications system which has a plurality of receivers to each of which an address has been assigned, and a base station which transmits a paging signal, and determined the n times and m times; including the first subframe started and second subframe stopped (See Col. 2, line 39 through Col. 8, line 67, particularly Col. 2, lines 39 to Col. 3, line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Moulsey, such that wherein the second number is less than the first number, wherein the second number is selected to satisfy the designated packet error rate; and terminating transmission of the first subpacket of data after the second number of installments, to provide the efficient battery savings can performed at the receivers.

Regarding **claims 2 and 9,** Moulsey/Ito teach the method as in claim 1, wherein a power boosting gain factor is applied to each of the second number of installments (See claims #11, #15 and #19) of Moulsey.

Regarding **claims 3 and 10,** Moulsey /Ito teach the method as in claim 2, wherein the power boosting gain factor is nominally set to (N/M), wherein N is the first

number of installments, and M is the second number of installments (Col. 2, lines 39 to Col. 3, line 54) of Ito.

Regarding **claims 4 and 11,** Moulsey/Ito the method as in claim 1, wherein terminating transmission of the first subpacket of data comprises: initiating a second subpacket of data after the second number of installments (Col. 2, line 39 through Col. 8, line 67) of Ito.

4. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsey (US 2002/0028691) in view of Tong (US 2002/0150040).

Regarding **claim 15,** Moulsey teaches a base station apparatus [0002] comprising: a packet processing unit adapted to receive data for transmission [0008] and generate packets [0009-0018], each of the packets transmitted in a number of installments [0008, 0022]; a power boost unit adapted to apply a power boost factor to a portion of the packets See claims #11, #15 and #19,

But Moulsey is silent on on an acknowledgement message processing unit adapted to terminate transmission of installments for a subpacket on receipt of an acknowledgement message; and a transmitter for transmitting power boosted subpackets, wherein the packet processing unit terminates processing of the subpacket on receipt of a negative acknowledgement message after the portion of the subpackets is transmitted.

However, Tong teaches an automated retransmission requested-based system that the packets transmitted from transceiver to a receiver either an acknowledgement

(ACK) or a negative acknowledgement (NAK) to the transmitter, in which including the coding techniques to increase the robustness (strong signal) of the transmission and increase the likelihood (chances of retransmit packet) of the receiver being able to properly recover the transmitted packet [0003, 0008-0027].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Moulsey, such that an acknowledgement message processing unit adapted to terminate transmission of installments for a subpacket on receipt of an acknowledgement message; and a transmitter for transmitting power boosted subpackets, wherein the packet processing unit terminates processing of the subpacket on receipt of a negative acknowledgement message after the portion of the subpackets is transmitted, to control the retransmission packet of improperly received information and recreate the packet for retransmission for the recovered subpackets.

Regarding **claim 17,** Moulsey/Tong teach the method as in claim 16, wherein the first negative acknowledgement has a first bit pattern, and the second negative acknowledgement is a different bit pattern orthogonal to the first bit pattern [0023-0042] of Tang.

Regarding **claims 16 and 18,** Moulsey teaches a method for transmission from a mobile station in a wireless communication system [0002, 0008], wherein each data packet received is transmitted in a number of installments [0009-0018],

But Moulsey is silent on the method comprising: transmitting a first negative acknowledgement message for a last installment of a first subpacket, the first negative

acknowledgement transmitted at a first time slot; and transmitting a second negative acknowledgement message for the last installment of the first subpacket, the second negative acknowledgement transmitted at a second time slot, wherein the second time slot is designated for the first subpacket of the next packet.

However, Tong teaches an automated retransmission requested-based system that the packets transmitted from transceiver to a receiver either an acknowledgement (ACK) or a negative acknowledgement (NAK) to the transmitter and/or time slots, in which including the coding techniques to increase the robustness (strong signal) of the transmission and increase the likelihood (chances of retransmit packet) of the receiver being able to properly recover the transmitted packet [0003, 0008-0027].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Moulsey, such that transmitting a first negative acknowledgement message for a last installment of a first subpacket, the first negative acknowledgement transmitted at a first time slot; and transmitting a second negative acknowledgement message for the last installment of the first subpacket, to control the retransmission packet of improperly received information and recreate the packet for retransmission for the recovered subpackets.

Allowable Subject Matter

5. Claims 5-7, and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

For **claims 5 and 12,** the prior art of this record does not disclose or teach wherein the first number of installments for the first subpacket of data corresponds to a first time period, wherein terminating transmission of the first subpacket of data comprises: waiting for expiration of the first time period; and initiating transmission of a second subpacket of data after expiration of the first time period.

Claims 6-7, and 13-14 depend on claims 5 and 12.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571) 272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Vu
Examiner

ERIKA A. GARY
PRIMARY EXAMINER